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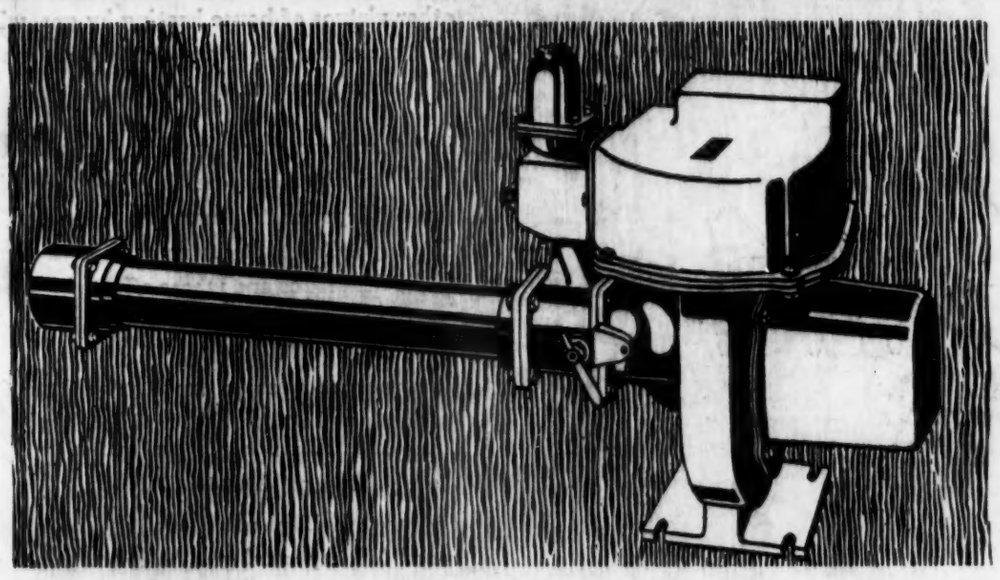

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More trouble is caused gas companies from inefficient burners on their industrial applications than from any other cause incident to an industrial installation.

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This burner POSITIVELY WILL NOT BACKFIRE.

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Write for construction detail and prices.

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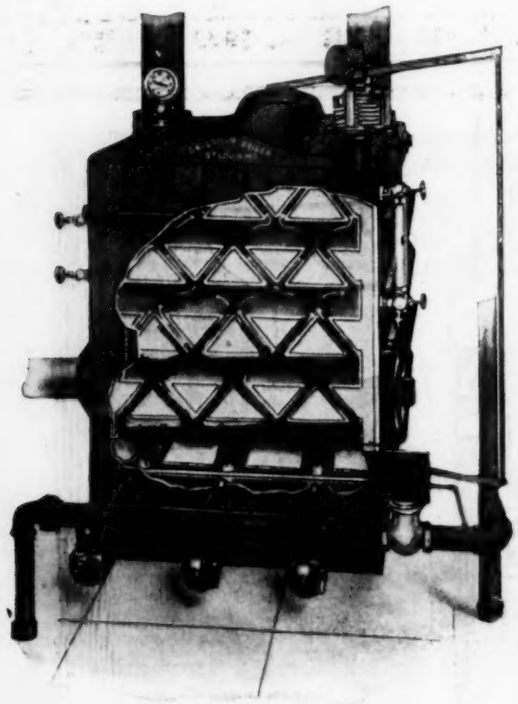
Other Gas Companies Are Doing It!



Send for our booklet and terms and learn how Gallaher Gas-Fired Boilers will increase both Volume Sendout and Profit.

TO educate the masses to the convenience, cleanliness, economy, wastelessness, safety and all the other virtues of house heating by gas, will take time and patience; but if the start is not made the goal will never be reached.

Yet there are some gas companies who have approached the house-heating-by-gas problem in an earnest, systematic manner; notably, The Laclede Gas Light Co. of St. Louis, who have surmounted all of the difficulties and whose efforts have been entirely successful.

The present time is most propitious for forcibly presenting the advantages of heating by gas, on account of the unsettled conditions in the coal industry with the possible shortage of this fuel next winter, and householders are therefore in a more receptive mood for improved gas appliances, such as the Gallaher Boiler and Storage Tank Heater.

GALLAHER GAS-FIRED TUBULAR BOILERS for Hot Water, Vapor and Steam Heating when shown, lower the sales resistance to this type of house heating and make easy the introduction of gas into a new realm of usefulness; to the satisfaction of the customer and profit of the gas company.

GALLAHER BOILER CO.

Laclede Gas Building, St. Louis, Mo

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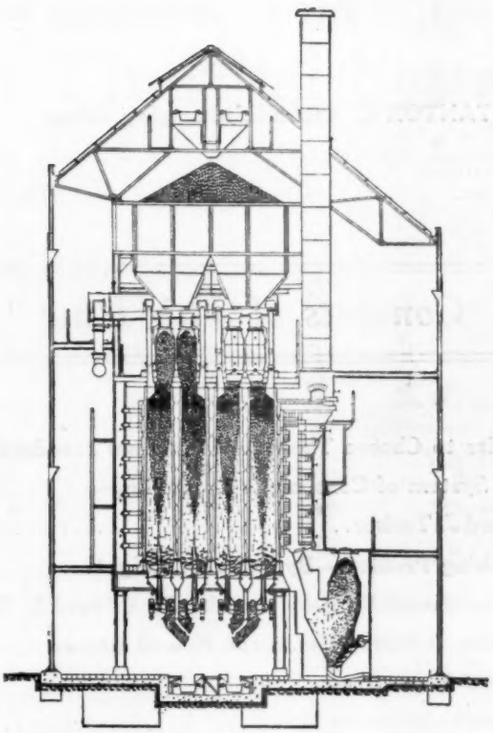
Vertical Retorts

ONLY THE CHIMNEY DAMPERS ARE MANIPULATED FOR CONTROL.



Dampers to the individual combustion chambers are provided for adjustment to the class of coal under treatment and the quality of gas to be produced.

One of the special features of an installation of

Glover-West

Vertical Retorts is the small number of men required to attend to the plant, and the consequent low labor costs, compared with other systems of coal-gas manufacture.

WEST GAS IMPROVEMENT CO.
of America, Inc.

150 Nassau St. New York

American Gas Journal

SIXTY FIFTH YEAR

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AMERICAN
GAS JOURNAL

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Gas Companies to Choose Their Own Thermal Standard

Colorado Public Service Commission Makes Momentous Decision

FOR the first time in the history of the American Gas industry, the gas companies, operating within the jurisdiction of a Public Service Commission, have been given legal permission to make and sell gas, having a standard value, "which shall be that value which, from its experience, the utility finds it most practical, economical, and efficient to manufacture and to supply to its customers to their satisfaction."

The order of the Public Service Commission of the State of Colorado applies to all gas companies doing business in that State. The decision is of a decided evolutionary character. Its effect on the gas industry of the country will be of the highest significance. It gives an undeniably legal status to a scientific fact, which has been proven to the complete satisfaction of engineers and scientists of high standing, to governmental institutions of renown and international reputation, namely, that the efficiency of gas utilization is not subordinate to the heating value of the gas within the ordinary commercial thermal range of from 300 to 600 B. T. U.

Considerable credit is due to H. B. Dwight, Engineer for the Public Service Commission of the State of Colorado, for the courage and enterprise that he evidenced in recommending this move to the Commission. His letter, which determined the Commission in promulgating its order, follows:

Enhancing Gas Prosperity and Improving Service to Consumer Underlying Tone

The order of the Public Service Commission is published herewith in full:

New Regulation starts Oct. 1, 1923.

"Denver, Colorado, June 30, 1923.

To The Public Utilities Commission of the State of Colorado, State Office Building, Denver, Colorado.

"Subject: Revision of Rule 18, Regulation for Gas Utilities.

"Gentlemen:—It has been apparent for several years that the arbitrary standard of heating value as set forth in Rule 18 might easily result in hampering gas utility operations without in itself improving in any respect the quality of the service rendered.

"From the statements made in the publications of the American Gas Association, Bureau of Standards reports, and public statements and technical articles by leaders in the gas industry, it appears that marked improvements in gas production methods and apparatus are being made, and that a lowering of B. t. u. standards is an essential part of the present trend of these improvements and is not necessarily detrimental to the consumer's service. Also it appears that any steps regulatory bodies may take which will encourage the gas utilities in regaining that prosperity which for several years they have lacked will result in improved service and satisfaction to the gas buying public.

Fixed Standard of Minor Importance

"There is a considerable variation in the B. t. u. standard among those states which fix a standard, ranging from 450 to 600 B. t. u. per cu. ft. Several states do not set a standard; others with a fixed standard provide a special standard by approval of the Commission in individual cases upon a showing made by the utility. The importance of a particular standard, so long as there is a fixed standard for the particular utility, in the judgment of the Commission's engineer, is of minor importance to other factors of gas production and sale. Much more important is uniformity of quality as to heating value, purity and chemical content, uniformity of gas pressure at point of use, proper adjustment of consumer's appliances to the standard in use, and a thorough, systematic inspection of such appliances to maintain them in condition for properly burning the gas.

Lower B. T. U. Gas More Stable

"It is known that to produce gas which will conform to the Commission's present standard, each B. t. u. put into a cubic foot of gas over and above the 300 B. t. u. must be accomplished at a much higher cost per B. t. u. Gas distributed at the Commission's standard is a more unstable combination of component gases than is possible with gases having a lower B. t. u. standard, and, therefore, more subject to a change in the main with changes in pressure and temperature. This alone increases the troubles to be overcome in gas distribution and tends

to vary the quality of gas received by different consumers in different locations. It is also known that in 'home rule' cities, in which most of the gas utilities of this State are located, gas is being supplied and satisfactory service rendered at standards materially lower than that of the Commission. With the other gas utilities it is doubtful if full compliance with the Commission's standard is to be found at all times. If the effort is really being made, it is probable that there is a wide variation from day to day, and the result leads to complaint and greater dissatisfaction than an actual lowering of the standard would produce.

Bureau of Standards on Efficiency of Gas

"Moreover, as to the question of what standard is proper, the Bureau of Standards has made the statement, based on exhaustive tests made in the Baltimore investigation, that the 'relative efficiency of gases of different heating value, when gas was used in domestic range burner, showed conclusively that for the ordinary commercial gases over the range of 300 to 600 B. t. u., there is no perceptible difference in efficiency.'

"Therefore, it seems proper that the Commission consider this matter of a standard. There is a wide range of standards in use by other Commissions without any conclusive evidence as to why they differ or why one is to be preferred to another. The statement of the Bureau of Standards would lead to the conclusion that the standards of other commissions have been arbitrarily chosen and do not fully or necessarily reflect those conditions surrounding the actual production of gas which made for highest economy, efficiency and practicability, as well as satisfaction.

"Therefore, there is submitted herewith a proposed rule which is flexible as to standard but emphasizes those factors of uniformity which should produce good service. It is suggested that a copy of the present and proposed rules with this explanation be sent to all gas utilities of the State, inviting criticism and suggestions. Then if the result is satisfactory the proposed rule be made effective.

"Respectfully submitted,
H. B. DWIGHT,

"Electric & Gas Engineer for the Public Utility Commission of the State of Colorado."

(Decision No. 638)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

In re Rule 18 Regulating the Heating Value of Gas For All Privately Owned and Municipally Owned Gas Utilities Operating Within the State of Colorado.

Case No. 84
Supplemental Order

Submitted June 30, 1923. Decided August 29, 1923.

STATEMENT

By the Commission:

On June 30, 1923, a proposed Revision of Rule 18 together with a statement of the reasons for making the revision was considered by the Commission. July 18, 1923, a copy of the proposed revision and the statement considered by the Commission was mailed to all gas utilities operating within the State of Colorado, and objections, criticisms and suggestions invited. Letters were received in reply from all of the gas utilities.

On August 24, 1923, the Commission gave further consideration to the proposed rule and examined the replies received from the gas utilities. Without exception these replies were commendatory and did not offer objection or suggestion. After this examination, the Commission has decided to adopt the proposed rule 18.

ORDER

It Is Therefore Ordered, That the following Rule 18, regulating the Heating Value of Gas, is hereby declared to be reasonable and shall be observed and followed by all gas utilities, including municipally owned or operated gas utilities operating within the State of Colorado.

It Is Further Ordered, That the present Rule 18 shall be stricken from the Rules Regulating Service of Gas, Electric and Water Utilities, effective January 1, 1917.

It Is Further Ordered, That this order shall take effect on the 1st day of October, 1923, and shall continue in force until suspended, modified or set aside by this Commission.

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO.
Grant E. Halderman.
F. P. Lannon.
Tully Scott.
(Seal.) Commissioners.

Dated at Denver, Colorado, this 29th day of August, 1923.

I do hereby certify that the above and foregoing is a true and correct copy of the original order of the Public Utilities Commission of the State of Colorado entered in the above entitled cause and now on file in this office.

Secretary.

RULE 18.

Heating Value of Gas—Each utility supplying gas for domestic or commercial purposes shall establish and maintain a standard heating value for its product, which standard shall be the monthly average total heating value of the gas as delivered to customers at any point within one mile of the manufacturing plant or center of distribution.

This standard heating value shall be that value which, from its experience, the utility finds it most practical, economical and efficient to manufacture and to supply to its customers to their satisfaction. The utility shall be prepared to justify the standard it adopts before the Commission by such pertinent facts as may be required. The utility shall declare this standard expressed in B. t. u. per cubic foot as a part of its schedule of rates on file with the Commission.

Card Ledger System of Consumers' Accounting*

Description of system—Running application department

By Edward J. Tucker

The Consumers' Gas Co., Toronto, Can.

Types of Systems

There are four recognized types of consumers' accounting systems in use by gas companies, viz., the bound book system, the loose-leaf ledger system, card ledger system and a system which is gradually coming into increased use called bookkeeping without books.

A. G. A. Accounting System Report, 1922

The accounting section of the American Gas Association for the past two years has concentrated its efforts on the problems surrounding consumers' accounting and in the section of its report for the year 1922, dealing with "Customer Accounting in the Smaller Utility," which was compiled by Mr. W. C. Murfit, of Newtown, Pa., the outstanding features of the typical systems in actual use by companies having 5,000 accounts and under were detailed.

Systems Adopted by Smaller Companies

It may be gathered, from a perusal of this report, that of a total number of 123 smaller companies reporting to the Association, 16 use bound ledgers, 86 use loose-leaf ledgers, and 21 use card ledgers. Continuous meter reading and billing has been adopted by 35 companies. The addressograph machine is used by 51 companies. Delivery of bills is accomplished by mailing in 46 companies, while 12 deliver by collector, 60 by meter reader, 3 by bill-deliverer, and 2 by having the consumer call at the office. It is the policy in 27 companies to collect when delivering the bill.

Thus it is apparent that even amongst the smaller companies the system in use show wide variations, each system adopted, no doubt, after considerable thought and study, and giving full weight to local conditions.

Unceasing Research Work Necessary for Efficiency

Under these circumstances it would therefore appear futile for one accustomed to the operations of a large company to make a definite statement as to the accounting requirements of a small company. On the other hand, there is no phase of the gas business which is so voluminous as the keeping of consumers' records and accounts and it is only by having members describe their independent practical solutions of the problem that the best methods perhaps can be established most satisfactorily. New machinery is being brought into operation in the gas accounting world continually, new methods and new appliances are constantly under review, therefore, no company can afford to assume a self-satisfied attitude toward the particular system it has adopted or developed.

The time allotted to this paper will not permit of a detailed description of each of the systems mentioned, and since a generalization of them would prove rather dry and to some, most uninteresting, it was thought wise to describe one system in detail.

Subject Matter of Paper

This paper will outline the card ledger system of consumers' accounting which has been used by the Consumers' Gas Company of Toronto for the past twelve years, together with a description of the office routine involved in the taking of applications for laying of service pipes, installation of gas meters, and the collection of accounts.

Toronto Plan Not Advocated for General Adoption

There is no desire on the part of the writer to advocate the adoption by smaller companies of the system or routine herein described, or to propose standardization along these or any other lines, it being thoroughly realized that what would constitute an efficient and economical system for a city of 500,000, would not, in its entirety, prove effective in a town of 15,000. Nevertheless, this paper is written in the hope that members may find in some phases of the system, ideas that will ultimately prove of value in their own situations.

On the other hand, although the Consumers' Gas Company of Toronto completes its seventy-fifth year in the public service in October next, one is never too old to learn, and we would be pleased to get the good thoughts and ideas of representatives in smaller companies.

Multitude of Routine Operations Performed

When it is stated that, in Toronto, in addition to the regular operations of the Consumers' Accounting Department, one-third of the 135,000 consumers each year move from one residence to another, and nearly 38,000 meters have to be reserved and tested annually by the Government Inspectors, some idea will be gained of the magnitude of the routine work involved in receiving the orders, supervising the execution thereof and in writing up and changing the records throughout.

*Delivered at the 16th annual convention of the Canadian Gas Association.

Liberal Use of Office Labor-Saving Devices Suggested

Those responsible for the development of the system described have always recognized the value of office labor-saving devices and they are employed on all operations where their use is considered advantageous. No clerk should do that which a machine can do as well or better. By turning over the drudgery of mechanical work to the care of speedy, accurate machines, all wasteful head and hand work is eliminated and the resulting work is made more uniform.

Exhibition of Office Forms

Contrary to the usual custom of presenting accounting papers of this kind, the reproduction of the forms used has been omitted. Instead, an exhibition containing the various office forms has been arranged. Each form in this exhibit has been numbered, the corresponding number being given throughout this paper whenever a particular form is referred to.

Function of Application Department

All applications for gas service are received by this department, including requests for discontinuance of service, and complaints regarding mechanical defects in service.

Before proceeding to describe the routine of applications for Services and Meters, it is necessary to explain the purpose of three features of the Application Department system, viz., The Despatch Record, the Clearing File and the Pending File.

Despatch Record

The Despatch Record is a departmental record of all work orders despatched to the shop for execution. All orders, of any nature whatsoever, are numbered and entered on the Despatch Sheets in numerical sequence. The Record is made out in triplicate, the original is retained in the Application Department, the duplicate is sent to the Credit Department and the triplicate is sent with the work orders to the Shop. As the completed work orders are returned to the Application Department they are checked off on the Despatch Record. The function of the Despatch Record is to prevent the loss of orders and to check up the progress of the Shop.

Clearing File

The Clearing File is a card record arranged alphabetically by street name and numerically by street number, containing complete information of the installation of all services, meters and other orders issued in favor of each address. Before despatching to the Shop, all work orders are passed through the Clearing File to be registered on these cards. At the same time meter orders are defined whether new sets or unlocks, meter remove or lock orders are furnished with meter numbers and locations, names and addresses checked and all repeat orders are cancelled. Meters locked for non-payment of accounts are registered on the Clearing File cards to prevent orders being despatched to the Shop before the Credit Department raises the ban.

Pending File

The Pending File contains a copy of all uncompleted contracts and work orders, filed numerically by street numbers regardless of street names. Each day a "Why Not" report is forwarded from the Shop Office giving the reasons why certain orders have not been completed. In addition to serving as a check against the return of the work orders from the Shop, the Pending File functions as an information bureau for the telephone and counter clerks answering inquiries from consumers.

Application for Service Pipe

The applicant for the introduction of a service pipe from the main to the building signs an application form, from which a work order is issued in triplicate.

Distribution of Work Orders to Departments Interested

The original of the work order is sent to the Mains and Service Records Department for the insertion of the main location, after which it is given to the Services Department for execution.

The application is placed in the Pending File as a check against the original work order being returned.

The duplicate copy of the work order is placed in the Clearing File as a temporary record that gas is being introduced at the address given.

The triplicate of the work order is sent to the Commercial Department Sales Manager, who gives the information thereon to the salesman as prospective business.

Work Orders Returned Upon Completion of Installation

Upon completion of the installations fo. the day the foreman fills in on all work orders the material used and labor required, together with the number and size of roadway and sidewalk cuts, and returns them to the Application Department. This information serves as a basis for billing each to the Application Department of the meters locked for non-payment or non-security, services ordered to be disconnected at the street line, services that have been disconnected at the street line, or meter removed, payment necessary in each case to reinstate service, and banned addresses released.

Ban Issued to Stop Execution of Orders

It is sometimes necessary to prevent orders of any nature from being executed on the premises of consumers already in arrears or whose credit is not satisfactory. To this end a "Ban" is issued by the Collection Department and placed in the Clearing File. Since all orders, of any nature whatsoever, must pass through this file, the Collection and Credit Departments are thereby safeguarded.

Paper Not a Complete Description of All Operations

In the foregoing outline of office routine, numerous minor details doubtless have been overlooked, or omitted purposely as not being of direct interest

(Continued on Page 224)

The Rate Making Problem*

Some suggestions for its solution

Peter O. Knight

The rate making problem is one of the most significant in the public utility field today. The attitude of rate making bodies, their subservience to poltical influences is claimed to be endangering the existence of private ownership of utilities. It is urged that the companies be permitted to make their own rates or that the rate commission be freed from political control and the decision of the polls. The Florida arbitration rate making law is described and commended as a step in the right direction.

ON May 22 the newspapers throughout the country heralded the fact that the Supreme Court of the United States on the day before had rendered a decision in the Southwestern Bell Telephone Company case laying down the proposition that it was impossible to ascertain what would amount to a fair return upon properties devoted to public service without giving consideration to the cost of labor, supplies, etc., at the time the investigation was made.

And this was supposed to be a new pronouncement of the Supreme Court of the United States upon this important question.

Principle Laid Down Before

As a matter of fact, the decision was nothing but a reiteration of the views expressed by the Supreme Court in repeated decisions in the past. Twenty-five years ago the Supreme Court of the United States, in the case of San Diego Land & Town Company vs. National City, reported on page 739 of 174 U. S., used the following language:

"What the company is entitled to demand in order that it may have just compensation is a fair return upon the reasonable value of the property at the time it is being used for the public."

Again, twenty-one years ago, in the case of San Diego Land & Town Company vs. Jasper, reported on page 439 of 189 U. S., Mr. Justice Holmes used the following vigorous language:

"The main object of attack is the valuation of the plant. It no longer is open to dispute that, under the Constitution, what the company is entitled to demand in order that it may have just compensation is a fair return upon the reasonable value of the property at the time it is being used for the public. That is decided and is decided as against the contention that you are to take the actual cost of the plant, annual depreciation, etc., and to allow a fair profit on that footing over and above expenses."

Again, in Wilcox vs. Consolidated Gas Company, reported in 212 U. S., page 19, the Supreme Court said:

"There must be a fair return upon the reasonable value of the property at the time it is being used for the public. And we concur with the court below in holding that the value of the property is to be determined as of the time when the inquiry is made regarding the rates. If the property which legally enters into the consideration of the question of rates has increased in value since it was acquired, the company is entitled to the benefit of such increase."

In the case of the Lincoln Gas & Electric Light Company, reported in 223 U. S., page 349, Justice Lurton, in delivering the opinion of the court, disposes of the question as follows:

"The valuation fixed by the court is the main point of attack. That the company is entitled to a fair return upon the value of the property, at the time of the inquiry is the rule."

Again, in the case of Des Moines Gas Company vs. City of Des Moines, reported in 238 U. S., page 153, the following language from the report of the master was quoted without criticism by the Supreme Court:

"It is not a question of what was actually expended in the plant in question, but what it would cost to reproduce a similar plant at the present time. It is through this method we reach the present value of this plant new and then when it is properly depreciated according to the condition, life, and age of its various parts we reach the present value of the plant in its present condition. It is not a perfect method, but it is the best method therefor, and results as nearly as possible in giving the present value of the plant. No other method known has proved so satisfactory."

And again, in the case of Lincoln Gas & Electric Light Company vs. Lincoln, reported in 250 U. S., page 256, Justice Pitney used this very practical and forcible language:

"It is a matter of common knowledge that, owing principally to the World War, the costs of labor and supplies of every kind have greatly advanced since the ordinance was adopted, and largely since this cause was last heard in the court below. And it is equally well known that annual returns upon capital and enterprise the world over have materially increased, so that what would have been a proper rate of return for capital invested in gas plants and similar public utilities a few years ago furnishes no safe criterion for the present or for the future."

Principle Is Violated Continually

And yet, although this principle, to wit, that the man who devotes his property to a public use is entitled to earn a reasonable return upon its present fair value, has been recognized by the Supreme Court of the United States and by all of the Federal Courts for more than a quarter of a century, we find that rate-making bodies, whether public service com-

*Stone & Webster Journal.

missions or city councils, have continuously violated this rule, disregarded testimony, fixed the value of the public utility plant as low as they possibly could fix it, and have then established a rate which in their judgment permitted a return of anywhere from six to eight per cent upon such base value. And this situation will continue indefinitely if the present method of rate-making is continued. No business in this country is more completely and rigidly regulated than the national banking business; but the enactment of measures governing such regulation and the execution of the same thereafter has been from constructive motives solely. But public utility rate-making bodies have not been established by the people for the purpose of constructive regulation, but in a spirit of hostility to the public utilities, and for the purpose of having rates reduced. With this sort of a condition and with the primary method of electing officials to fix rates, how can it be expected that persons composing rate-making bodies, whether state or local, can settle each matter upon its merits and hold their positions?

Hostility of Rate Making Bodies

Of course, as long as prices were falling in this country it was simple. These regulating bodies were constantly reducing rates and this pleased the people; but now, since prices have been increasing and these regulating bodies were compelled, contrary to their wishes, to raise rates, there is a spirit of hostility upon the part of the people toward rate-making bodies. So much so that in the state of Florida, where we have a railroad commission composed of as competent officials as can be found in any commission in the United States, the chairman of it having spent a quarter of a century in the service of the state, and as able and competent as any person holding any position on any public service board in the United States, the legislature at its session of 1921 and again in 1923 seriously considered the question of abolishing the railroad commission simply because of hostility upon the part of the people caused by the necessity upon the part of the commission of And because of this hostility the commissioners are raising rates of railroads and utilities in the state. compelled to serve for the ridiculous salary of $3,600 a year, wages received by an ordinary mechanic.

So I say it is impossible for rate-making bodies, as they are now established, to pass upon these questions upon their merits. If they do the members of such bodies will be defeated at the polls at the next election by any sort of a man who announces when he runs for the office that he intends to reduce the rates of public utilities.

Profit Must Be Made for Utility Business to Be Successful

The public utility business cannot be successfully continued unless one who invests his money in public utility companies can earn as much upon his investment as a man can who invests it in mortgages or in private enterprises; and it is utterly impossible for this to be done if the public utility company is compelled to finance itself upon the basis of 9 or 10 per cent, which it must do, and then only be permitted to earn a net of 7 or 8 per cent on the value of the property, out of which 7 or 8 per cent it must pay interest on its bonds and on its indebtedness and have money left for development purposes. Such being the case, of necessity there is rarely anything left to pay dividends to stockholders; and under such circumstances people will not invest their money in public service companies.

Public Utility Must Be Allowed Adequate Profit

In a recent rate hearing in which I was counsel, some 12 or 15 business men in the community testified as witnesses. All of them testified that they thought that that particular public utility under investigation was entitled to earn the same return that was earned by other businesses in that city, and their testimony showed that at that time the various businesses in which they were interested were earning from 15 to 50 per cent annually. One of the men, a leading business man of this state, testified that he did not consider any business safe that did not earn at least 15 per cent net, because the country was growing, the stockholders were entitled to dividends, and there should be enough money left after paying operating expenses, taxes, depreciation, interest, and dividends, for development purposes, to take care of the growth of the business necessitated by the continued growth of the country. And this fact must be recognized by the people, and the present rule adopted generally throughout the country, to wit, that the rate-making bodies can fix the value of the property and that upon such value only 7 or 8 per cent can be earned, must be changed or there will in time be no private ownership of public utilities in this country. This is manifest. And government ownership of anything would be a calamity.

Private Membership Threatened

I have given this question serious consideration for many years, and I have come to the conclusion that if private ownership of public utilities is to be continued in this country one or two things must happen: either that rate-making by regulatory bodies must be abolished entirely and the utilities be permitted to fix their own rates; or if rate making by governmental bodies is to continue that the method and manner of the execution of such rate-making power must be changed so that such regulatory bodies can fix rates on the merits of each situation without the fear of political annihilation. No governmental rate-making power is now necessary for public utilities. Every modern manager of a public utility now knows that he cannot successfully operate the property under his charge except and unless he has public opinion with him, and he knows that he cannot have such favorable public opinion unless his company gives first-class service and at reasonable rates. The manager who does not most fully and completely recognize this fact has not common sense enough to operate any public utility, and he

will not last long. But if governmental rate-making is to continue, then I am satisfied that public utilities will not be able to have rates fixed on their merits except and unless the members of rate-making bodies are appointed for life and with sufficient salaries to attract the most competent men; or that rates be fixed by arbitration, the city or state to appoint one man, the company, or companies, affected to appoint one man, those two to appoint a third, and the decision of a majority of the arbitrators to be binding upon both the company and the city or the state, as the case may be.

Florida Arbitration Rate Law

Such a law has been passed by the Florida legislature at the session just closed. The bill was introduced by Hon. A. T. Stuart, of Tampa, Florida, is known as the "Stuart Bill," and it is as follows:

"An Act to Confer Upon the City of Tampa The Power to Regulate Electric Light, Electric Power, and Gas Rates and Service and to Prescribe the Means and Method of Exercising Such Power.

"Be It Enacted by the Legislature of the State of Florida:

"Section 1. In addition to the powers now authorized by law, the city commission of the city of Tampa is hereby authorized by the method herein provided to fix just, reasonable, compensatory and adequate rates which may be charged for gas or electricity to consumers thereof in the city of Tampa, and to make such reasonable rules and regulation in regard to the extension of mains, connection and service to consumers as the said Commission may deem necessary and proper, and to prescribe penalties for failure to observe any rate so fixed, or for the violation of any rule or regulation which may be prescribed under this act.

"Section 2. That when the city commission shall, by resolution duly adopted, determine that the method of service or the compensation rates of any gas or electric company operating within the limits of the city shall be re-adjusted in order to correct abuses or to prevent unjust discrimination or excessive charges in rendering the public service, the city commission shall so advise the utility company in writing and shall by resolution appoint an arbitrator whose name shall be certified by the city commission to the utility company and such utility company shall within sixty (60) days select and certify to the city commission the name of an arbitrator selected by the company; and such arbitrators shall select a third arbitrator and the three shall proceed by investigation and consideration to ascertain what changes if any should be made in the method of rendering the public service, or what rates of compensation would be reasonable and just for the public service rendered and to report the same to the city commission without undue delay.

City Commission Promulgates Rate

"Upon receiving such report the city commission shall promulgate the rate or regulation reported by the arbitrators, or a majority thereof, and it shall become effective on the first day of the month that comes not less than twenty-five (25) days after such official promulgation, unless otherwise ordered by a court of competent jurisdiction.

Should the utility company fail to select and certify to the city commission the name of an arbitrator within sixty (60) days from the date of its notification to do so by the city commission, then upon due adoption of a resolution showing the giving of such notice and the failure of the utility company to select and certify the name of an arbitrator within sixty (60) days, and the delivery of a certified copy of such resolution to the utility company through any one of its resident officers or agents, the city commission shall proceed in due course of law to ascertain a just and reasonable rate or regulation to be made in the premises which shall be promulgated and enforced by appropriate judicial proceedings in the Circuit Court or in the Supreme Court.

"Section 3. Said arbitration board, after appointment and organization, shall have the power to inspect the books and records of the utility company the rates or regulation of which are under consideration and to compel the attendance of witnesses before them.

"Section 4. The city shall pay the fees of its arbitrator and its witnesses; the utility company, whose rates and regulations are under consideration, shall pay the fees or its arbitrator and its witnesses; the fee of the umpire shall be paid jointly by the city and the utility company in equal proportions.

"Section 5. This Act shall take effect upon becoming a law."

Law Has Merits

A careful reading of the law indicates the merits of it. With this law the utilities affected in Tampa will be able to have their rates fixed in each instance upon the merits of the situation and when the rates of any public utility are fixed upon the merits of the situation no fault can ever be found with the rates so fixed.

And if this method is adopted generally throughout the land, it will remove forty-fiftieths of rate-making troubles and litigation.

Gas Oil Production

The July production of gas and fuel oils was 1,053,242,507 gallons, an increase of 82,372,634 gallons over the June output. Stocks of these oils August 1 were 1,400,813,790 gallons, an increase of 76,000,000 gallons during the month. Consumption of gas and fuel oils in July was 901,770,327 gallons, an increase of 76,000,000 over June, and of 20,000,000 gallons over July of last year. Imports of gas and fuel oils in July were 46,259,234 gallons, while exports were 120,942,731 gallons.

Gas Companies Should Be Easy to Call

Edward D. Brewer

Secretary-Treasurer Southern Gas Association

Many merchants are careful to construct easy entrances to their stores in order that customers will literally fall in the places of business.

To-day, when so many thousands of people use the telephone entrance to the salesrooms of Gas Companies, the Gas Company should make it exceptionally easy for both old and new customers to get in telephone touch.

"Rain or shine, gas is dependable all the time." Why not let this fact face the public on the front page of the telephone directory?

The Gas Company should be looked upon as a leader in its community, and should certainly be keeping company with the other leaders, one of which is the Telephone Company. Anything less than the front page cover will not stack up with

the leadership. The Gas Company, being in the spot light, should be in the van of the vast numbers of people listed in the Telephone Directory.

It should be just as easy to call the Gas Company as to call the Fire Department. In fact, the more the Gas Company is called, the more gas appliances are sold and installed, and the less need for calling the Fire Department. Many a Fire Chief has said that the use of gas has reduced the fire hazard.

If the coal man can afford to invest in an advertisement on the front page, why should not the Gas Company that furnishes such a vital service be on the front page?

It is splendid policy to make it less difficult to get the Gas Company; the public should not have to wade through a maze of names and numbers to find the Gas Company's number. The public should be able to get the Sales Department quickly, and the Service Department just as quick.

Everybody most sees the front page of the Telephone Directory. Think of the number of times it is used each day.

The cut shows how the Gas Company's advertisement would look on the front cover of the telephone directory.

Arc Welded Gas Holders*

Detailed account of design of Melbourne Gas Holder

By Joseph Newell Reeson, M. Inst. C. E.

Pres. Victoria Inst. Engrs. Engineer in Chief Metropolitan Gas Company at Melbourne, Australia

In response to a request of the Committee of the Canadian Gas Association that I should contribute a short paper on the history of progress of Welded Gasholders in Melbourne for their meeting on August 20th proximo, I have pleasure in submitting the following few notes in the hope that the President and Council will realize that it is impossible to do more than give an outline of the subject in the short time at my disposal. While confining my remarks necessarily to the structures which have been fabricated with welded joints as against riveted ones in Melbourne, with which my name has been associated, I think I may safely say that, as far as gasholders are concerned, those erected in Melbourne are, not only the first structures so fabricated in Australia, but also in the world. Let me say at once that in my opinion the advantages of the new method of construction are so great, that in a few years time, no structure of any kind in future will be found to be riveted.

History

The question of welding as against riveting joints, whether of sections, plates or sheets, in any position may be said to have been first considered by me some six or seven years ago; for it may be mentioned, en passant, that, during the past nine years, no fewer than six gasholders ranging from ½ million cu. ft. to 3 million cu. ft. have either been constructed wholly or reconstructed in Melbourne. This work large in itself, was performed principally during the time the World War was in progress; and, although efforts were made to induce European firms to tender, it was found that none were able to undertake the work. To accomplish this, then, in Australia by outside engineering firms was impossible; and, thus it came to pass that this company, the Metropolitan of Melbourne, had perforce to undertake the work of construction themselves. Extensive fitting and constructional workshops had to be erected, tools provided, and skilled workmen and a highly efficient draughting staff trained from material which had probably no knowledge of gasholder construction previously.

The first experiments in welding were confined to the jointing of sheets; as it was early appreciated that the single riveted joint ordinarily employed was lamentably weak; and numerous tests were made, which demonstrated this and other serious disadvantages. For some time oxy-acetylene welding was employed, but was ultimately discarded, as unsuitable, largely owing to the difficulty of overhead welding; as for instance, the under side joints of the crown sheets. Attention was then directed to the use of electric welding and numerous experiments—some 250—were made to test various types of joints and electrodes; and ultimately that employed was, what is known as the "quasi arc" process. From the tests, the tensile stress of the joint made, was invariably found to be equal to, if not greater than, the sheets themselves. There were few operators available; and those, who professed knowledge of welding, were not always suitable; and ultimately the training of the welders themselves had to be undertaken by the company's own staff. At the present time there are 23 expert welders operating, and these men have become exceedingly expert. Their work is examined by two foremen, also trained by the company.

Collapse of South Melbourne Gasholder

The first holders built were with riveted joints; and it was not until 1920, when the collapse of a 3 million cu. ft. gasholder, at the South Melbourne Works, took place on April 4th, 1920, that the author decided to employ welding in the sheet jointing. The collapse of this gasholder showed conclusively that the riveted joint was lamentably lacking in strength, and a short description may be of interest here. The holder was contained in a brick tank

*Delivered at the 16th annual meeting of the Canadian Gas Association.

200 feet diameter by 36 feet deep, and was of 3 lifts, the inner 191 ft. 6 in., middle 194 ft. 6 in. and outer 197 ft. 6 in. in diameter each by 35 feet deep. The original structure was erected in 1890 to the ordinary design of the period, with lattice vertical stays in the inner lift as main members, and curved plates as secondary members, which had collapsed through corrosion and wear, when the destruction took place.

Bent plates formed the cups and dips; the inner and middle lift vertical stays being channel sections. Radial rollers, only, were provided. At the time of its collapse the holder was about 80 feet high, i. e., the third lift was just out of water, when the crown lifted off bodily, allowing the enclosed gas to ascend into the air in a solid ball which caught fire, either from a neighboring stack or from a spark caused by the rending metal, on the rapid descent of the structure. The heat was terrific, and everything in the vicinity was either scorched or burnt, but fortunately no great damage was done except to the gasholder. The clearing of the wreckage occupied considerable time, as it was necessary to take every precaution to ascertain the real cause of the collapse; and it was not until 1921 that a commencement of the reconstruction was possible. The new gasholder was redesigned, and it embraced many novel features.

*Delivered at the 16th annual convention of the Canadian Gas Association.

Description of a New Gasholder

It will be realized that as no sheets were being rolled in Australia at that time same delay occurred in obtaining material; but the sections employed were generally of Australian manufacture, being rolled at the Broken Hill Works at Port Waratah, Newcastle, New South Wales.

A completely new design for the holder was taken in hand by the drawing office staff of the company; and, as the different sections were completed, they were put in hand in the company's construction shops, thus enabling the fabrication of the structure to proceed without delay. A new timber framing of improved design was installed, as well as new tank guides. The general dimensions of the new holder are as follows:

Dimensions of New Holder

Cups and dips were composed of 12 in. by 4 in. channel; and the 22 vertical stays of the outer and middle lifts were composed of 3 channels welded together; this welding was intermittent, i. e., not continuous throughout the length of the stays. The inner lift framing was particularly strongly built, as the author considers it should be, and consisted of two channel iron sections braced together with double triangular bars. The curb angle was of 6 in. by 6 in. by ½ in. splayed to conform to the angle of the crown curb. The curbplate and hanging plate were each of 7-16 in. thickness. The vertical stays were affixed to the crown curb plate and hanging plate at the top, and to the cup at the bottom of the lift. A reinforcing angle was placed under the crown curb plate, and strong gusset plates, attached thereto, to the top of the vertical stays. The crown sheets, as well as all the side sheets, were of 9-64 in. thickness and electrically welded together by the quasi-arc process.

This latter is believed to be entirely novel, and presented many interesting features and difficulties. In the first place the sheets which were of the largest size procurable, viz., 8 ft. by 4 ft., were originally welded in sets of 4 on the ground before erection; but this plan was early found to be inadvisable, owing to undue distortion, and the remainder were erected loose, and fastened together with bolts smaller than the holes through which they passed; thus ⅜ in. holes were used and ¼ in. bolts, to enable the sheets to move freely, and to provide against the distortion due to contraction after the welding process.

It is impossible here to describe in detail the many difficulties met with, and the many disappointments, which at times were sufficient to dishearten the staff; and it was only by the most careful attention and experiment that all difficulties were at last overcome; and the sheeting as finished appeared as flat and perfect as any engineer could wish such a structure to be. Carriages were furnished at the top and bottom of each vertical stay, the adjustments of these being completed on the inflation of the holder with air in June, 1922. There are some 15 miles of welding in the sheeting of this structure, and there were not more than six leaks when tested with soap and water. During the building of this holder continuous tests were being made with various joints, and these are still being carried out, in order that the welders themselves and the designing staff may become familiar with the best types of joint and the best method of making them.

No. 3 Gasholder, Fitzroy

The building of this holder was proceeded with on the completion of the South Melbourne structure; and, as such pronounced success had rewarded our efforts in face of unparalleled difficulties, the author determined to carry out the problem of construction further by constructing this holder exclusively by electric welding. The holder originally erected here was contained in a brick tank 163 ft. in diameter by 25 ft. in depth and was of 500,000 cu. ft. capacity. Shortly after the author's arrival in Melbourne it was found to be in such a bad order, and so leaky, that it was put out of action. But the work of construction was delayed owing to more pressing gasholder work being essential.

The design of the new holder provided for a structure of 2⅜ million cu. ft. capacity of 4 lifts, each 35 ft. in depth. The original tank was cut out of basalt subsoil; and the dumping was unfaced; the result being that disintegration had supervened and great boulders had fallen into the tank bottom. The base of the dumpling was cut back to accommodate the four lifts and it was faced with 12 inches of concrete to prevent further disintegration. The tank wall was

(Continued on Page 226)

As The Journal Views It

THE COLORADO SITUATION

Elsewhere in this issue there appears the announcement of an order issued recently by the Public Utilities Commission of the State of Colorado. As will be learned from reading the order, all gas companies in the State of Colorado are by it given what may be called a "Selective Standard." They are permitted to sell gas of whatever calorific value is considered "from the experience of the company to be most practical, economical and efficient to manufacture and to supply to its customers to their satisfaction."

Gas men generally will regard this as the most progressive and beneficial order issued by a regulatory body in the history of the American Gas Industry. The members of the Public Utilities Commission of Colorado, and the engineer, are to be heartily commended and congratulated for the up-to-date and helpful spirit that prompted this move, which will reflect so advantageously not only to the Gas Industry, but to all agencies where efficient and economical heat is required.

Under the new ruling, each gas company may use the process and the gas making materials best suited to the local conditions. The significance of this is apparent, when one considers that to produce gas of the rather high calorific standard now generally in effect, necessitates in many instances the transportation of special gas making or enriching materials over long distances, causing high freight charges and the consequently high delivered costs. Nearly every gas company in the United States is located reasonably close to coals or other gas making materials that can advantageously be used, and the high freight charges and other unnecessary costs can be eliminated if the Utility is permitted to supply gas of whatever quality can be produced efficiently and economically from these local materials.

Furthermore, the Utility under the new order may leave in the gas only those constituents that are not of greater value out of it, and let the heating value be what it may. The basic oils for many chemicals, dye stuffs and explosives may be derived from scrubbing gas practically free from hydro-carbons. The remaining gas is usually of lower heating value content per cubic foot. It, however, has been clearly demonstrated both here and in England, that as used for general purposes this low calorific value gas is of approximately the same efficiency as gas of higher B. T. U. value. The recovery of the oils creates a valuable by-product which, being sold, will reflect a substantial credit to the cost of making gas, and thus bring about lower production costs, and subsequently lower selling prices, particularly for large users of gas.

There are many gas making processes; for example, blue water gas, not heretobefore useful, because they produce only a low B. T. U. gas. They, however, can produce gas at substantially less cost than by the generally accepted standard processes.

The order of the Colorado Commission places in the province of the Gas Industry, where it rightly belongs, the solution of the problem of the proper technique of the gas business. It is really the gas engineer's task to determine the process, and the materials to be used to produce gas that is most economical both from the standpoint of production and utilization. Under arbitrary calorific standards, he has been almost completely discouraged from trying to find more economical solutions and has merely followed precedent.

It is only reasonable to say that gas is the logical fuel in practically every instance where heat is required. The almost limitless field of development is apparent if gas can be produced at costs considerably lower than at present. The new order is a distinct step in the direction of permitting gas companies to supply lower priced gas in large volumes and thus progress toward placing the Gas Industry in the position of supplying all heat requirements.

FRIENDLY ENEMIES

In certain localities throughout the country, natural gas competes with the manufactured product. The extent of this competition, however, is not large

and wherever it does occur, it is due to peculiar local conditions which render it more economical to use natural gas instead of manufactured gas. Natural gas possesses a higher heating value than manufactured gas but this in itself does not determine the quality of a gas nor the efficiency with wnich it can be used.

It is not our purpose to discuss the technical advantages nor in fact the economical advantages that can be obtained with one kind of gas in preference to the other. It is only our intention to show that the natural industry has a friend in the manufactured gas industry, a friend that can be of material help to it in meeting the various problems that arise in keeping the consumers supplied with a constant volume of gas sufficient for their needs.

The supply of natural gas is naturally limited. Large quantities are available, it is true, but the constant consumption entails the location of other sources of natural gas to replenish the continually exhausted supplies. It is hard to tell how long any given source of natural gas will continue to furnish a satisfactory supply of the product and it is understandable that in any given location it may be impossible to find sufficient additional supplies of gas to meet the demand.

The natural gas industry itself has gone on record in a number of cases by taking cognizance of this peculiar nature of the industry. Geologists and natural gas experts have written volumes regarding the occurrence of natural gas and the possible fields that may be found in the future. At present there may be no immediate signs of exhaustion of the natural gas fields, but it stands to reason that this will happen some day. Recently the question of supply was vividly brought to the attention of the natural gas industry by the president of a large natural gas company who stated that, if the natural gas industry of the country is to continue, conservation must be practiced everywhere. It was made very clear that the supply of natural gas at the present time is not keeping up with the demand and that steps will soon have to be taken to change the character of this demand, so that the domestic customer can be taken care of first.

It was also pointed out that the supplies of natural gas as they are used at the present time and as new ones are located in the future, should be employed in such a manner that the greatest good is rendered to the greatest number. Another rather significant statement was that the duty of the natural gas companies is primarily to their old customers and that before new business is undertaken, the company should be absolutely certain that old customers can be properly taken care of.

These remarks are worthy of consideration by both the natural gas and manufactured gas industries. They apply particularly to localities which are supplied with natural gas, whether derived from sources in the immediate vicinity or else pumped from a distance, where there are signs of the demand exceeding the supply and no indications of new fields of gas becoming available to meet the excess demand. It would probably be to the advantage of both the manufactured and natural gas industry, if the latter would call in the former to aid it in meeting the situation. The manufactured gas plant could serve very nicely as an adjunct to the natural gas supply and would augment the volume of gas to such an extent that all customers, whether they be old or new, industrial or domestic, could be supplied with all the gas that they require.

There are many homes in the natural gas territory that depend solely upon this product for lighting, heating and cooking. There are manufactured plants which use natural gas in their business, and cutting out the supply would be a hardship on both. Euch hardship would be unnecessary for it would be a comparatively easy matter to arrange for the establishment of manufactured gas plants in these districts for maintaining the supply of gas, commensurate with the demand. Thus the manufactured gas industry could be of material assistance to its "friendly enemy" with a mutually beneficial result.

CARD LEDGER SYSTEM OF CONSUMER'S ACCOUNTING

(Continued From Page 216)

in connection with Consumers' Accounting. Descriptions of the methods of handling cash, making and recording allowances and refunds, the preparation of monthly balances and report and the personnel of the various departments, have been omitted since their inclusion would have rendered this paper too ponderous to be of use.

Exhibition of Forms Complete

The exhibition of office forms is fairly complete so that is there is any part of the regular routine which has not been touched upon in this paper and in which any member present is especially interested, a representative of the Toronto Company or the writer will be glad to be of service.

Regarding Lost Ledger Cards

May I anticipate the oft repeated although quite natural inquiry, regarding the liability of losing ledger cards, by stating, that consequent upon the careful check of meters in use described by our Mr. Scott at last year's Convention, we are able to report that we have yet to lose a ledger card.

Industrial Gas Rates In Chicago

Impetus given to industry by new rates—Rates on scientific basis

Bernard J. Mullaney

Manager Public Relations Department, Peoples Gas Light & Coke Co., Chicago, Ill.

Recognition of a new era in manufacturing—recognition of Industry's crying need of Gas for its heat processes—is reflected in the new industrial gas rates of the Peoples Gas Light & Coke Company of Chicago, as ordered by the Illinois Commerce Commission.

This is the first time in Illinois and, as far as known, the first time at any industrial center in the United States, that an industrial gas rate has been established on a scientific basis, with "demand" and "output" differentials carefully worked out. The rate making principle is that which has been long employed in the electric light and power industry and that has been such a factor in making electric power economically available to the industrial world. This new industrial schedule is shown at the end of this article.

It is estimated that the new industrial rates will effect an aggregate saving of more than $1,500,000 a year to Chicago manufacturers now using gas in their heat processes.

By the same order that put this indistrial rate into effect, the Illinois Commerce Commission reduced the general rates of the Peoples Company to five cents per thousand cubic feet—from $1.00, 95 cents and 90 cents according to quantity used per month, to 95 cents and 85 cents—and also put in a special house-heating rate that amounts to practically 75 cents a thousand cubic feet. On the basis of 1922 business, the new rates cut the company's gross income about five per cent. But the company believes the revenue cut will be offset by additional sales volume to come from the attractiveness of the industrial rate to manufacturers, plus aggressive going after new business.

Industrial Gas Important Factor in Manufacturing

This is a natural expectation because no other single item in the realm of manufacturing has contributed so largely to increased earnings of manufacturers as the substitution of industrial gas for crude fuels. With the new gas rates, even greater reduction in production costs can be effected in Chicago.

Consider for instance the case of a typical manufacturer using 5,000,000 cubic feet of gas per month, at the rate of 25,000 cubic feet per hour. Under the old rates, existing prior to August 1, 1923, his monthly gas bill would be $4,560.89 or 91 2-10 cents per thousand cubic feet. With the new rates his monthly gas bill will be $3,700.55 or 74 cents per thousand cubic feet. This means a saving of $860.34 per month, or $10,324.08 per year. There is a reduction in cost of fuel in this particular case of nearly 20 per cent.

Service Afforded as Well as Fuel

Also to be considered is the fact that in Chicago, industrial gas is fuel plus service. The Peoples Gas Light & Coke Company maintains an engineering organization and laboratories, the services of which are at the disposal of manufacturers. Many complex manufacturing problems have been solved by this corps of industrial experts. The user of industrial gas in Chicago not only gets a low-priced and dependable fuel but he also gets the service of experienced combustion engineers and a service which the average manufacturer probably could not otherwise afford, even if it could be obtained elsewhere.

For the manufacturer who uses heat in any of his manufacturing processes, gas has already proved its superiority over other fuels. With scientific rates, as inaugurated at Chicago, which are also much lower than the old rates, he will find a way to reduce costs as well as improve quality of product. As manufacturer diagnose and re-diagnose their business, and as efficiency engineers, production engineers and statisticians work at cutting costs and improving quality, they are bound to learn that it is not altogether the initial cost of fuel, but the cost of using it that makes fuel such an important factor in their business. And quality of product: if the quality is impaired by the fuel used, the loss of business thus sustained is a legitimate charge against the fuel.

Analysis of Fuel Costs

But let the manufacturer forget quality for the time being; forget increased production and sales; forget decreased manufacturing costs. Eliminate them all from consideration temporarily and consider nothing but fuel costs. Let him take a paper and pencil and in all fairness tabulate the costs of using crude fuels. He will write some or all of the following items:

Freight
Lost time in waiting for fuels
Demurrage
Switching
Storage
Maintenance of storage equipment
Insurance on fuel stored
Interest on fuel stored
Interest on investment
Distribution of fuel
Ash removal
Compressed air
Fuel boxes and attendance
Extra cleaning due to dirty fuel
Spoilage from dirt or uneven heat

Atomizing
Unloading
Electricity for pumping
Fuel losses
Lost time
Labor for handling fuel and maintaining fire.

These are items which should be figured into the cost of using crude fuels in addition to the original cost of the fuel itself. Next figure the crude fuel cost per unit of the finished product.

Compare this figure with the cost of industrial gas, which is not burdened with any of the costs listed above. The findings will be surprising.

Advantages of Industrial Gas

In addition to fuel cost, other advantages and economies when gas is used in the shop and factory, as compared with other fuels, are important factors to be considered. Gas is always available instantly day or night, in either large or small quantities. It is clean, making no smoke or soot. This improves working conditions and makes labor more efficient; it is a feature of special importance to manufacturers treating metals, where cleanliness is essential to a perfect product.

The new special rate of the Chicago Company, available only for house or space heating and applied only to gas consumed for that purpose and not to gas consumed for any other purpose, is as follows:

For cubic feet of gas consumed in any one month—

For the first 400 cubic feet, 60 cents.

For the next 2,600 cubic feet, 95 cents per 1,000 cubic feet.

For all over 3,000 cubic feet, 75 cents per 1,000 cubic feet.

Minimum charge per meter per year, $24.

This special rate will enable consumers to use gas for house heating at a cost comparable with other fuels, all factors considered. These rates are approximately 25 per cent lower than the old rates and will make this service available to many who, although desirous of heating their homes with gas, felt that the cost was too great.

New Rates for Industrial Use

The rates under this classification are available to any consumer who shall apply and enter into a contract for the same.

DEMAND CHARGE

Cubic Feet of Maximum Demand in Any One Month.	Charge.
For the first 50 cubic feet	12c per cubic foot
For the next 50 cubic feet	4c per cubic foot
For the next 900 cubic feet	3c per cubic foot
For all over 1,000 cubic feet	2c per cubic foot

OUTPUT CHARGE

Cubic Feet of Gas Consumed in Any One Month.	Charge.
For the first 1,000,000 cubic feet	75c per 1,000 cu. ft.
For the next 1,000,000 cubic feet	70c per 1,000 cu. ft.
For the next 1,000,000 cubic feet	65c per 1,000 cu. ft.
For all over 3,000,000 cubic feet	60c per 1,000 cu. ft.

3 per cent discount allowed from the amount of the bill if paid within ten days.

Minimum Monthly Charge

The consumer's total payment for any month's service shall not be less than an amount equal to 50 per cent of the highest previous monthly demand charge against him since the beginning of his contract with the company.

This rule is based in part upon the rate of maximum hourly demand of the particular consumer, thus applying to the field of gas rates a principle long adopted in the making of electric rates.

ARC WELDED GAS HOLDERS

(Continued From Page 222)

raised 10 ft. 6 in. by the erection of a reinforced concrete extension 9 inches thick at the top and 12 inches at the bottom, extending behind the top of the tank wall as an apron to take care of the additional pressure of the water exerted on the wall. That was especially necessary owing to the street surrounding the yard being some 7 ft. below the surface of the yard.

Design of Extension Wall

The design of this extension wall is novel and has proved in this and another similar case entirely satisfactory. The sixteen guide standards, with their horizontal members, were all latticed structures, entirely welded up. The standards were formed of two heavy steel channels 10 in. by 3½ in. and diagonally braced with angle irons. The horizontal struts were composed of 4 angle irons to which were welded angle iron diagonal bracing, thus forming box girders. These members with the diagonal ties were all welded up. The ties of the lowest bay were screw-adjusted before the second bay was welded up, and so on. At the top of the structure which was of 5 bays, wind tie brackets extended radially inwards and were connected with bar ties fitted with adjustable turn buckles. All the various members of the guide framing were completely welded up in the workshop, before assembling on the site, and to secure a minimum use of service bolts in the field. The four lifts and the crown were constructed in a manner similar to that of the new South Melbourne holder just described. Here, however, the experience gained on the former holder greatly facilitated the erection of this one. The total weight of the steel in this holder was about 760 tons; and in sixteen weeks twenty men, eight of whom were welders, completed the erection. The Fitzroy gasholder was subjected to rigorous examination and proved to be, if anything, a more effective piece of construction than the South Melbourne holder, and not a sign of a leak was anywhere discerned.

Three Part Gas Rate Asked by Western Gas Company

Average customer would be benefited

New rates for gas heating service in homes is sought by the Utah Gas & Coke Company under an application filed Friday with the public utilities commission. These rates are classed by George B. Horning, general manager, as being such as will make gas heating of homes practical.

Letter From Gas Company Accompanying Petition

Public Utilities Commission,
State Capitol,
Salt Lake City, Utah.

Gentlemen:

Enclosed please find petition of the Utah Gas & Coke Company for the authorization of a reduced gas rate applicable to house heating in the city of Salt Lake.

There has been an insistent public demand for rates that will allow house heating with gas as fuel.

After scanning rates and results of their application in various other cities, we have worked out the attached schedule.

It is our hope that this reduction of rate will eventually so increase the use of gas in Salt Lake City that material reductions in other rates will follow. The demand upon the plant must be the controlling feature for future lowered gas rates.

This reduction in rate is in accordance with our voluntary offer of such heating rates made some months ago to the Chamber of Commerce and Commercial Club of Salt Lake City.

We believe that these rates are the most modern form of gas rate and best adapted to growth of the gas business and economy of the customer.

We hope that in following the form of rate that has been so successfully applied in Denver we will be able to make additional inroads upon our winter smoke nuisance.

Respectfully,
General Manager.

GRH/MM
Inc.

Three Part Rate

CLASSIFICATION OF SERVICE
KIND OF SERVICE (or use).
RATE H
Schedule of Rates for Artificial Gas for House Heating
Three Part Rate

1. Customer Charge
   Per customer, per annum $12.00 net.
   Payable in twelve equal monthly installments.
2. Demand Charge
   Per hundred cubic feet of maximum hourly demand, per annum $24.00 net.
3. Consumption Charge per M. cu. ft. $ .55 net.

Penalty: A penalty of 10c per M. cubic feet will be added if bill is not paid within ten days from date of bill.

Special Rules:

1. Open to all users of gas for general house heating. It is not applicable for incidental heating, except where such incidental heating is additional to general house heating.
2. This rate will apply to other domestic uses of gas on the premises where this rate is applied.
3. The customers maximum hourly demand shall be estimated by the company and the customer in accepting this rate hereby authorizes the company to install a demand limiting device to supply the specified demand. Demands may be specified only in multiples of fifty cubic feet beginning with 100 cubic feet.
4. Service shall be supplied hereunder for a period of not less than one year from the date of acceptance of this rate by the customer.

Service would be given under the schedule at 55 cents net per 1,000 cubic feet of gas, as compared with the present rate of $1.60. They will, however, be subject to a customer charge of $1 and to an additional charge of $2 a month net for each 1,000 cubic feet of maximum hourly demand. No discount would be allowed by the company for prompt payment but instead the company asks for permission to establish a new precedent for utilities and impose a 10 per cent penalty on bills not paid in 10 days' time.

Only One Meter Allowed

Rules are asked for the new service such as would make the new rate open to all users of gas for general house heating. The rates, however, would not be available for incidental heating except where heating is in addition to the general house heating. In other words, where the service of heating is installed in a home but one meter would be used and all gas used from this meter whether for cooking, lighting or heating would be charged for at the new rate. Unless the heating service be installed, however, there would be no change in rates from those now applying. A third rule would permit the company to install a device in the home such as would limit the maximum consumption of gas at any given time. A fourth rule proposed would make the rates apply for a period of at least one year from the date of its acceptance by the customer.

Smoke Elimination

The question of whether the new rates would really work to a reduction from those now existing for the more limited service would depend on the maximum hourly demand. To the average customer, however, Mr. Horning believes the proposed rates would be lower than those now applying. In an accompanying letter the general manager declared the company hopes the reduced rates would increase use of gas in Salt Lake to such an extent that material reductions

in other rates would follow. The increased use of gas without a vastly increased instantaneous demand on the plant must be the controlling factor for future lowered gas rates, he says. The company is convinced the rates proposed are the most modern form, and best adapted to growth of the gas business and economy to the customer. It is hoped further that in this line the company will be able to make inroads on the smoke nuisance.

The company applies for the rates to be made effective September 24, or on 30 days' notice. The law would not require a hearing upon the application of the company as it would not generally be recognized as an increase in rates. Two new rates are proposed by the company, however, which the commission may want to hear, the customer charge and the demand charge. Any customer, however, might attack the rates and bring the matter to a hearing.

GAS COMPANIES TO CHOOSE THEIR OWN THERMAL STANDARD

(Continued From Page 214)

The utility shall maintain the heating value of the gas with as little deviation as is practicable and such deviation is limited to the range of 5% above to 5% below the standard adopted.

To obtain the monthly average heating value of gas, the results of all tests of heating value made on any day shall be averaged, giving the average total heating value for that day. The monthly average total heating value shall be the average of all such daily averages taken during the calendar month. It is understood that all records and statements are based on tests made under standard conditions, i. e., at 60 degrees Fahrenheit, and under a pressure of 30 inches of mercury.

Proper adjustment of consumers' devices to the heating value in use is incumbent upon the utility. Records and tests showing uniformity of heating value in compliance with the above uniformity of gas pressure and reasonable effort in the matter of adjustment and systematic inspection of consumer's appliances shall be considered as sufficient proof of good service insofar as applicable.

WATER GAS TAR EMULSIONS

W. W. Odell

Fuel Engineer, Bureau of Mines

In numerous water-gas plants difficulty has been experienced in separating the tar from the water that is simultaneously condensed from the gas. This difficulty was so serious that the research committee of the Illinois Gas Association suggested it as a problem warranting study and investigation. The suggestion was accepted by the Bureau of Mines, which made a brief investigation of these tar emulsions consisting in the main of a laboratory study of tars and emulsions collected from different plants and produced under different operating conditions.

The purpose of the work was not to find a means of separating tar-water emulsions, but rather to learn more about their formation with the thought in mind that such information might lead the way to a method of operating that would avoid the formation of obstinate emulsions. Methods are recommended by the Bureau of Mines that greatly reduce the difficulty.

In the manufacture of carbureted water gas the only fuel used directly other than the generator coke is the carbureting oil. As the substances of which tar is composed are driven from the coal in coking, the source of water-gas tar is primarily the carbureting oil. In the water-gas process the aim is to convert as much of the oil as possible into a fixed gas with an average heating value high enough to carburet the blue gas. This conversion is never 100 per cent complete, because appreciable amounts of carbon and of condensable tarry matter always form. The latter on condensing is known as water-gas tar; it may be composed entirely of substances formed by the cracking of the oil or it may contain an appreciable amount of some of the original constituents of the oil. It is not uniform in character and quality; rather the product of one plant is frequently altogether different from that of another plant. The reason for these differences is that the operating conditions, oil used, gas standard, etc., are not the same in all plants.

Properties of Tar

The tar may be brown, thin, or watery, contain a large percentage of light oils, and have a specific gravity but little greater than 1.00; or it may be black liquid, of molasseslike consistence, containing a much smaller percentage of light oil and having a specific gravity of 1.15 or more. Again, a water-gas tar may contain little or much free carbon and naphthalene.

Obviously, in specifying tar for a particular purpose, a water-gas tar cannot be either condemned or recommended unless the properties of the particular tar are known.

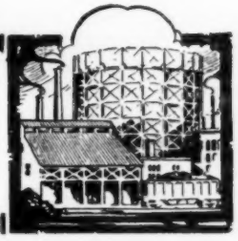
A water-gas tar emulsion is a tar, produced as described, having in suspension small droplets of water that do not readily separate from the tar. The percentage of water that can be thus retained may be as high as 85 per cent. It is not customary, however, to think of a tar as an emulsion when its water content is as low as 1 to 5 per cent.

The consistence of the emulsion depends, other things being equal, on the percentage of water dispersed in the tar. The greater the percentage of water present the more viscous the emulsion. At ordinary room temperature an emulsion containing 70 to 75 per cent water is usually thick and buttery, but one containing 2 per cent of water is approximately as fluid as a water-free tar.

The size of the droplets of dispersed water is not the same in all tar emulsions or in any particular one, but other things being equal, the most obstinate emulsions, those having a high water content and not settling readily, contain droplets of smaller average size than the less permanent emulsions.

Technical Paper 304 may be obtained from the Department of the Interior, Bureau of Mines, Washington, D. C.

NEWS OF THE GAS INDUSTRY



Gas "Meeters" Meet

On August 20th the "Gas Meeters" of the Bridgeton Gas Light Company of Bridgeton, held their monthly meeting and outing at Fortescue, N. J.

Capt. Warrington of the Warrington House served one of his famous fish and oyster dinners, after which the meeting was held.

The following men, guests of the club, gave most interesting talks on "Service."

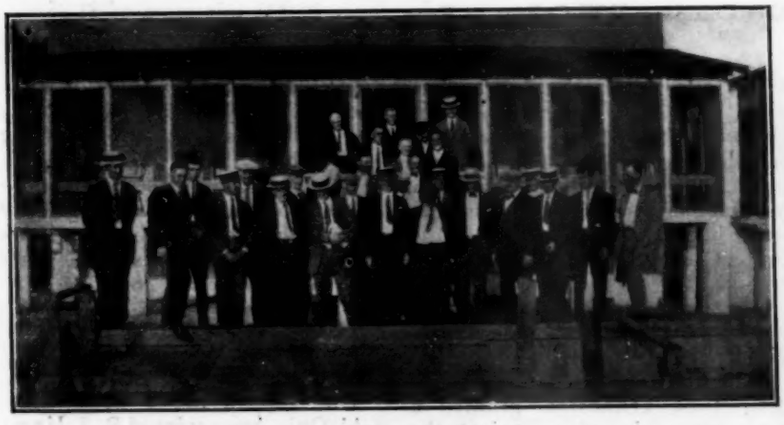
John E. Newman of H. Belfield Company, spoke on "Service as a Salesman Sees It."

C. J. Newman, assistant cashier of the Bellevue-Stratford, Philadelphia, told about "Service as the Hotel Man Sees It."

Thomas Byrne, Inspector of the Public Utility Commissioners of New Jersey, told about "Gas Service as Rendered by The Bridgeton Gas Light Company to the People of Bridgeton."

C. Edwin Bartlett (Ruud Bartlett) of Philadelphia talked about "Hot Water Service." Mr. Bartlett gave one of his best talks, for which he is noted. He was possibly better able to handle this because of the recent swim enjoyed —he wore a 40 suit for a perfect 46.

Jacob B. Jones, superintendent and treasurer of the Company, introduced the speakers in his usual happy manner.



Bridgeton Gas "Meeters'" Outing at Fortescue, N. J.

Superior Meter Company Will Open a Chicago Office With Well Known Gas Man in Charge

Owing to the increased business of the Superior Meter Co. of Brooklyn, N. Y., in the middle western states, and their desire to give their customers more personal attention, they have appointed F. E. Newberry, who for many years was manager of gas companies operating in Kankakee and Dixon, Ill., also at Green Bay, Wis., as their Western representative with headquarters at Chicago, Ill.

Mr. Newberry's early gas experience was obtained in the Peoples Gas Light & Coke Co. in Chicago in various departments. While directly connected with Gas Company Management he was very active in Gas Association work. He was a charter member of the Illinois Gas Association and was the secretary and treasurer.

Mr. Newberry severed his connections as manager of gas properties just prior to the war, and was Government Purchasing Representative located at the Submarine Boat Corporation in Port Newark, N. J., in direct charge of all Government purchases entering into the construction of a twenty-five million dollar shipyard. During the past several years he has been connected with large shipping interests and has spent much time in travel in Europe.

He is one of the incorporators and an official of the Gas Service Corporation of New York City, a corporation formed to furnish gas service to the Fifth Ward, the only remaining ward in New York City not being served with gas at the present time. Owing to the Walker Bill, passed at the last session of the Legislature, and the many legal difficulties arising from same the corporation plans were held up awaiting a court decision as to its legality.

Mr. Newberry is popular in the mid-western territory, knows the gas business and can meet the local gas managers and talk gas meters to them in their own language.

New Installation in York Plant

The York (Pa.) Gas Company is arranging to install a new carburetted Water Gas Generator in its plant, together with other equipment, and has placed the contract for doing this work with The U. G. I. Contracting Company, of Philadelphia, Pa.

Michigan Gas Association Issues Program for Meeting

The annual meeting of the Michigan Gas Association is to be held at the Hotel Pantlind, Grand Rapids, Mich., September 18th to 20th. This year the meeting will be held at the same time and in the same place as the Michigan Electric Light Association. Both Associations however will hold entirely distinct sessions with the exception that on Tuesday evening, September 19th, they will meet jointly at Hotel Pantlind.

The entertainment features this year are unusually attractive. There will be a joint banquet of both Associations at Hotel Pantlind Wednesday evening, September 19th. Later in the same evening there will be dancing. Music will be furnished by the renowned Kolkowski's orchestra. On Thursday afternoon there will be a golf tournament between the gas men and the electric men at the Kent Country Club. Special preparations are being made to entertain the ladies. They will atend the banquet and on Wednesday will make a tour through one of the big furniture plants with a luncheon and card party in the afternoon.

The following is a tentative business program arranged for the meeting:

1. Report of Executive Committee.
2. Report of Secretary-Treasurer.
3. Reports of Special Committees.
4. President's Address—F. W. Seymour.
5. A message from American Gas Association—Col. O. H. Fogg.
6. "A Record of Progress in Gas Purification"—W. S. Blauvelt.
7. "A Few Commercial Department Experiences"—J. Frank Jones.
8. "What Kind of Insurance Should a Gas Company Carry?"—Homer M. Eaton.
9. "The New Carbonization Plant at Batle Creek"—C. S. Holt.
10. "The New Carbonization Plant at Wilwaukee"—J. A. Brown.
11. "The Back Run Process for Water Gas"—W. W. Klyce.
12. "The Future of the Gas Business"—F. A. Newton.
13. "Experience with Gas Company Accounting Practice"—E. C. Calkins.
14. Report on Fellowship Work at University of Michigan—Prof. A. H. White.

C. Cleveland Will Manage Columbia Gas Plant

Mexico, Mo.—Charles Cleveland of this city has accepted the position of manager of the gas plant at Columbia and will leave immediately to assume his new duties at that place. Mr. Cleveland has been the superintendent of the gas generation of the Missouri Utilities Co for the past fifteen years. This was a very responsible position and Mr. Cleveland filled his place ably. The Columbia plant is very lucky to secure a manager with the experience that Mr. Cleveland has received in his work here with the Missouri Utilities Co.

Gas Raise Asked

Youngstown, Ohio.—A hearing at the East Youngstown Council meeting was given to J. J. McMahon, representing the East Ohio Gas Co., requesting an increase in gas rates.

McMahon asked that a service charge of 60 cents per month by the company be authorized by the council. He explained why the increase in rates was sought, telling council that expenses of bringing gas from the Ohio river to East Youngstown has nearly doubled.

The rate now in effect calls from a sliding scale of 45 cents to 60 cents per thousand cubic feet.

Gas Company Will Collect at Rate $1.65

Chattanooga, Tenn.—That the Chattanooga Gas Company has full right to collect from consumers at the old rate, $1.65 per thousand feet, until outcome of the federal court case started by the concern, and further, that the company has made bond in the sum of $25,000 to protect customers in event the new rate, $1.25, is sustained by the court, are apparent from the complete order received from Nashville.

Judge John J. Gore, of the middle district of Tennessee, granted a temporary injunction against the state railroad and public utilities commission, forbidding that body from enforcing the $1.25 rate, at least until Oct. 1, in response to the request of the gas company. The latter stated that the new rate fixed by the state board would amount, if put into effect, to confiscation of their property and business, claiming that they could not operate at a fair profit on such a rate.

In event the gas company loses its case, the $25,000 bond is required by the court, and has been furnished, to assure that the company will refund to its customers the difference between the old and new rate from the time the state board attempted to make the latter effective, July 1, to the decision of the court, which will be in October. If the case goes against the gas company it will not be released from the bond until the court is shown that all customers' claims for refund have been satisfied.

Gas Fight of Many Years' Duration in Muscatine Settled

Muscatine, Ia.—The Muscatine gas case, which has been in litigation for years, has ended.

The city council of Muscatine accepted the proposition on rates offered by the Muscatine Light & Power Co. It is the first time in five years that a mutual rate has been agreed upon. The rates given in the proposition are: 500 cubic feet of gas, $1.50; 600, $1.60; 700, $1.70; 800, $1.80; 900, $1.85; 1,000, $1.90; 1,500, $1.76 per thousand; 2,000, $1.70; 2,500, $1.65; 3,000, $1.62; 4,000, $1.55; 5,000, $1.52; over 10,000, minimum of $1.25.

The Muscatine Light and Power Co. will, according to the proposition, dismiss the injunction proceedings now pending against the city and pay all court costs of the long fight.

The company will not pay the $30,000 refund asked by the city from higher rates of the past, however, and this case is to be carried to the supreme court.

Advertising Manager Appointed

The Tappan Stove Co., Mansfield, Ohio, has apointed R. J. Hammer as advertising manager.

Colorado Power Company Progressing

The Colorado Power Company continues in "prosperity grove." There is outstanding and in the hands of the public $4,341,800 in bonds; $1,002,000 in preferred stock, and $1,051,200 in common stock, yet the bond interest was earned 2.7 times; the preferred stock dividend was earned 3.6 times. The following table shows the business for July, 1923 and 1922, compared, as also the twelve month period ending July 31:

JULY—		
Gross operating revenue	1923.	1922.
Operating expenses and taxes	$100,447	$83,676
Net operating revenue	49,998	43,973
Other income	50,449	39,702
Total income	2,317	5,953
	52,766	45,656
12 MOS. END. JULY 31—	1923.	1922.
Gross operating revenue	$1,103,274	$966,624
Operating expenses and taxes	560,356	554,565
Net operating revenue	542,918	412,059
Other income	43,087	77,662
Total income	586,005	489,721
Int. on first mtg. bonds	209,919	209,920
Int. on funded debt subsidiary	8,714	9,025
Other deductions from income	1,209	2,694
Depreciation reserve	114,684	101,405
Net corporate income	251,477	166,677

Increases Capital Stock

Albany, N. Y.—A certificate has been filed in the office of the Secretary of State at Albany, N. Y., through Edward Clifford, attorney of 27 Pine Street, New York City, increasing the capital stock of the New York and Richmond Gas Company from $1,500,000 to $3,000,000.

New Gas Methods Studied

Representatives of Peoples Gas Light & Coke Co. Visit Many European Plants

The seven representatives of the Peoples Gas Light & Coke Co., Chicago, Ill., who made an extended tour of Great Britain and Europe to investigate the latest European developments in all phases of the gas industry, have now returned and resumed their regular occupations.

The party consisted of G. F. Mitchell, treasurer of the company; T. V. Purcell, secretary; W. A. Sauer, comptroller; R. B. Harper, chief chemist; H. E. Bates, assistant to chief operating engineer; F. F. Cauley, superintendent industrial sales; J. H. Eustace, chief operating engineer. They sailed on the steamship "Majestic" on May 12, and returned on the "Franconia," arriving in New York August 1.

They travelled about seventeen thousand miles in all, and inspected twenty-five gas companies in the larger cities they visited. These included, in England, Bournemouth, London (2), Birmingham, Manchester, Liverpool, Newcastle, Sheffield, Bedford; in Ireland, Belfast; in Scotland, Glasgow, Edinburgh; in France, Paris (2), Marseilles; in Italy, Rome, Naples, Florence, Milan; in Switzerland, Zurich, Geneva, Vevey; in Belgium, Brussels; in Holland, Amsterdam.

A feature of the gas industry in Europe, upon which many of our returned travellers comment, is the landscaping of the ground surrounding the gas company property.

Pictures taken by R. D. Harper demonstrated that a gas house can be made an attractive acquisition to a neighborhood.

The party brought back a mass of printed matter, annual reports, advertising booklets, and pamphlets concerning various phases of the gas industry.

Some of the subjects which appealed to the party are:

Use of direct reading indexes on gas meters.

Use of iron oxide purifying materials without wood shavings.

Tray systems for increasing capacity of purifying boxes.

Investigation of gas leakage indicator, as used by some European countries.

Activity in designing gas equipment for industrial use.

Special attention to regenerative and recuperative furnaces.

Coke recovery process.

New Owner of Iron Mountain Plant Promises Better Service

Iron Mountain, Mich.—Iron Mountain's trials and tribulations as far as gas service is concerned will probably end within a comparatively short time, according to E. J. Koppelkam, Milwaukee man who purchased the plant at the recent receiver's sale.

It is planned first of all, he declared, to put the plant in shape so that adequate service can be given and as soon as possible the present high rate will be reduced. Although not experienced in the gas business himself, Koppelkam has secured the services of an expert.

When the service is improved as far as can be done with present equipment a careful survey will be made both of the plant and the field it serves. As soon as this has been completed plans will be made for the installation of new equipment.

"We do not expect to purchase new equipment until spring," Mr. Koppelkam said, "as it will take that long to accurately determine just how big the field here is. I have ample capital back of me for any addition or enlargement that we undertake here and can promise much better gas service and a lower rate as soon as possible."

It is understood that when the new plant is built in the spring the investment will be greatly in excess of $100,000. The present plant is antiquated and costly to operate in addition to being too small for the community. Experts have already advised that it be abandoned and another and larger site selected for the new plant.

Gas Extension Work Will Cost $75,000

Natural gas extensions, costing a total of about $75,000, are now under way in South Fort Worth, Riverside and Arlington Heights, it was announced by O. K. Shannon, manager of the Fort Worth Gas company. Many other extensions are to be made as rapidly as possible.

In addition to the extension work, the gas company is expending more than $50,000 in laying new gas mains ahead of the street paving projects in order that it will not be necessary to tear up newly paved streets to mend gas pipes.

Gas Companies Merge

Mobile, Ala.—Official announcement was made of the consolidation of the Gulf City Gas Company with the Southwestern Gas and Electric Company. The merger was completed in Chicago recently. The new corporation will serve 200,000 people. It will have managers in Shreveport, La.; Texarkana, Texas, Arkansas, Gulfport, Biloxi and Pass Christian, Miss. Rufus C. Daws, of Chicago, is president of the new concern with other officials scattered throughout the entire territory. D. G. Skinner, Biloxi, was appointed vice-president and general manager of the gulf city division.

Lock Haven Light & Power Co. Sold

Lock Haven, Pa.—The property of the Lock Haven Gas Company was formally disposed of at a meeting of the stockholders of the corporation held in the offices of the Lock Haven Light and Power Company, the purchaser being Ralph Beaton, of Columbus, Ohio. All the buildings, equipment, stock, and franchises owned by the company were included in the sale, but the amount of money involved has not yet been made public. One thousand shares of stock were purchased by Mr. Beaton.

Mr. Beaton, the purchaser of the local plant, is extensively interested in gas, being the owner of a number of similar plants through the west, and Lock Haven will become one of the chain of gas manufacturies.

The local manager of the gas plant will be G. M. Moran, formerly of Vicksburg, Miss., who has been in this city since the first of August, looking after Mr. Beaton's interests and getting things in shape for the progressive program which the new owner expects to put through.

The Bald Eagle Street property will be considerably improved and extended in order to produce a larger output, and it is also planned to expend $25,000 or more in laying new lines to those portions of the city which are not now reached with the present gas pipes. According to present plans, this program of expansion will begin in the very near future.

The offices of the company will be in those formerly occupied by the Lock Haven Electric Light & Power Company. They have been repaired and renovated ready for the occupancy of Mr. Moran and his office force.

New Gas Rate in Effect

Cuyahoga Falls, Ohio.—The new gas rate in the Falls on the franchise recently granted the East Ohio Gas Co. by the Falls City Council went into effect September 1.

The franchise calls for a 60 cent service charge and does away with the minimum charge of 90 cents formerly charged consumers whether they used the gas or not. In other words the consumer will be charged a minimum of 60 cents and then for whatever amount of gas he consumes.

The net rate charged consumers will be the same as under the former franchise.

Talladega to Have New Gas Plant

Talladega, Ala. — At a joint meeting of the City Commission and the Talladega Light & Water Commission, it was decided to at once make preparations for the construction of a new gas plant.

Superintendent D. J. Daugherty of the gas and water systems was instructed to secure the detailed cost of a plant of sufficient capacity, and when this is done, a definite statement will be issued by the commissions as to what they propose to do.

It can be stated with a reasonable certainty that a new gas plant will be under construction before a very great while.

Central Ohio Gas Firms to Dissolve

Medina, Ohio.—At a stockholders meeting, to be held in the office of the Central Ohio Gas Co. at Wooster, dissolution of the five companies which are included under the head of the Central Ohio Gas Co. will take place.

The Medina Gas and Fuel Co., the Columbus Natural Gas Co., the Berea Pipe Line Co. and a New Jersey corporation are included in the companies which will be dissolved.

The Central Ohio Gas Co. is headed by Henry Doherty.

Gas Company to Build New Office Building

Bridgeport, Conn.—The directors of the Bridgeport Gas Light Company have authorized the drawing of plans for a modern two-story office building to become the home of the firm and to be built at the southwest corner of Main and Gilbert streets. Ernest G. Southey is the architect and is securing bids. If the cost is found to be prohibitive the work will be deferred until a later date.

The building will be brick, two stories in height and so arranged that additional stories may be added as time and business demand. The structure will house only the gas company.

The business of the company has doubled in the last 10 years, and it now has over 40,000 customers, it was stated by Vice-President George S. Hawley, and the new building is to relieve the present overcrowded quarters.

Officers of the company are De Ver H. Warner, chairman of the board; Frank M. Travis, president; George S. Hawley, vice-president; Ralph I. Munson, treasurer; R. A. Lewis, secretary.